

- Check to see if your yard is a source of erosion. Plant grass or trees anywhere there is a bare patch in the yard.
- Apply exactly the amount of fertilizer or plant food prescribed on the instructions of those boxes and do not over fertilize the grass on your lawn.
- Play carefully on the banks of streams or brooks and do not pull up the grass. The grass and trees on the stream banks keep the soil near the stream from washing into the water. Running and walking on the sides of the stream will loosen the vegetation so that it can wash away when a storm causes the water in the stream to rise.
- Be sure that you pick up your pet's droppings from the stormwater drains, along the streets or on the sides of any water bodies or canals. Remember that anything that is on the street before a rain storm will be washed into the streams and rivers of your community by the storm and enter the waterway without treatment.
- Limit the amount of household chemicals you buy. Pesticides, fertilizers, strong cleaners and oils create serious water pollution problems when they are misused or thrown away carelessly. Try to reuse these items or ask your neighbors if they would like to use the rest of the product.

## **VI. PROTECTION OF GROUNDWATER**

Beneath the earth's surface lies a large and valuable supply of water known as **groundwater**. In fact, the amount of usable water stored within the first half mile of the surface is at least 20 times greater than the amount held in all U.S. rivers and streams.

The major source of groundwater is rain. Although much of the rainfall evaporates back into the atmosphere or runs off into lakes, streams or rivers, some sinks into the ground. Water from rain soaked surfaces slowly trickles down through the earth at a rate of several inches to several feet per day. This water eventually may reach rock, sand or gravel formations where it collects as if a saturated sponge at various depths below the surface. Such water is called **groundwater**. Unfortunately, polluted water moves in this same pattern and can trickle harmful substances into groundwater and contaminate an aquifer as well.

### **A. Aquifers**

Groundwater collects in the pore spaces of certain rock formations, known as "**aquifers**." Most aquifers are made up of unconsolidated materials like sand and gravel. Such loosely arranged deposits provide storage space for the water that has percolated down through the earth. There are many aquifers in the United States. In fact, one location may have several different aquifers at various depths. They may be small and extend only a few miles. In New Jersey the aquifers most prevalent are Cohansey, Kirkwood, Woodbury, Merchantville, Marshall Town, Navesink, Hornerstown, Potomac-Raritan Magothy, Farrington and Old Bridge.

